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10/520,787	01/11/2005	Kenichi Miyoshi	L9289.04193	2438
24257	7590	10/27/2009	EXAMINER	
Dickinson Wright PLLC			MIAH, LITON	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/520,787	<b>Applicant(s)</b> MIYOSHI ET AL.
	<b>Examiner</b> LITON MIAH	<b>Art Unit</b> 2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 June 2009.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 8-19 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 8-19 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
  - 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
  - 3) Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
  - 5) Notice of Informal Patent Application
  - 6) Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. This Action is in response to Applicant's amendment filed on June 19, 2009.

Claims 8-19 are still pending in the present application. **This Action is made FINAL.**

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 8, 9, 11-14, 16 and 17 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Khan (US 2004/0203973).

For claim 8, Khan discloses a radio receiving apparatus (UE) comprising:  
a receiver operable to receive a data packet from a radio transmitting apparatus [Node-B] (**Abstract; paragraph 0009 and 0014**); an error detector operable to detect an error in the packet (**Abstract; paragraph 0007, 0009 and 0014**); a reception quality measurement section operable to measure a reception quality between the radio transmitting apparatus and the radio receiving apparatus (**Abstract; paragraph 0007, 0009, 0014, 0015 and 0019**); a transmitter operable to transmit a NACK signal to the radio transmitting apparatus and to transmit to the radio transmitting apparatus a suspend signal requesting to suspend transmission (**Abstract; paragraph 0009, 0014,**

**0017, 0018 and 0020); wherein the transmitter transmits the NACK signal to the radio transmitting apparatus if the error is detected by the error detector (Abstract; paragraph 0009, 0014, 0017, 0018 and 0020) and the transmitter transmits the suspend signal to the radio transmitting apparatus based on the reception quality between the radio transmitting apparatus and the radio receiving apparatus (Abstract; paragraph 0007, 0009, 0014, 0015, 0019 and 0020).**

**For claim 9,** Khan further discloses the transmitter transmits the suspend signal to the radio transmitting apparatus if the reception quality is equal to or greater than a first threshold (Abstract; paragraph 0007, 0009, 0014, 0015 and 0019).

**For claim 11,** Khan further discloses the transmitter is further operable to transmit a resume signal requesting to resume the suspended transmission (Abstract; paragraph 0009, 0014, 0018 and 0021).

**For claim 12,** Khan further discloses the transmitter is further operable to transmit a give-up signal requesting to stop the suspended transmission (Abstract; paragraph 0009, 0014, 0018 and 0023).

**For claim 13,** Khan discloses a radio receiving method comprising the steps of: a step of receiving a data packet from a radio transmitting apparatus [Node-B] (Abstract; paragraph 0009 and 0014); a step of detecting an error in the packet (Abstract; paragraph 0007, 0009 and 0014); a step of measuring a reception quality between the radio transmitting apparatus and the radio receiving apparatus (UE) (Abstract; paragraph 0007, 0009, 0014, 0015 and 0019); a NACK transmitting step of transmitting a NACK signal to the radio transmitting apparatus; and a suspend-signal

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transmitting step of transmitting to the radio transmitting apparatus a suspend signal requesting to suspend transmission (**Abstract; paragraph 0009, 0014, 0017, 0018 and 0020**); wherein the NACK transmitting step transmits the NACK signal to the radio transmitting apparatus if the error-detecting step detects an error (**Abstract; paragraph 0009, 0014, 0017, 0018 and 0020**) and the suspend-signal transmitting step transmits the suspend signal to the radio transmitting apparatus based on the reception quality between the radio transmitting apparatus and the radio receiving apparatus (**Abstract; paragraph 0007, 0009, 0014, 0015, 0019 and 0020**).

**For claim 14**, Khan further discloses the suspend-signal transmitting step transmits the suspend signal to the radio transmitting apparatus if the reception quality is equal to or greater than a first threshold (**Abstract; paragraph 0007, 0009, 0014, 0015 and 0019**).

**For claim 16**, Khan further discloses a resume-signal requesting step of transmitting a resume signal requesting to resume the suspended transmission (**Abstract; paragraph 0009, 0014, 0018 and 0021**).

**For claim 17**, Khan further discloses a give-up signal requesting step of transmitting a give-up signal requesting to stop the suspended transmission (**Abstract; paragraph 0009, 0014, 0018 and 0023**).

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khan in view of Faerber (US 2003/0031143).

**For claim 10**, Khan further discloses the transmitter transmits the suspend signal to the radio transmitting apparatus if the reception quality is equal to or greater than a first threshold (**Abstract; paragraph 0007, 0009, 0014-0015 and 0019**).

**For claim 15**, Khan further discloses the suspend-signal transmitting step transmits the suspend signal to the radio transmitting apparatus if the reception quality

is equal to or greater than a first threshold (**Abstract; paragraph 0007, 0009, 0014-0015 and 0019**).

**For claims 10 and 15**, Khan specifically does not disclose a second threshold.

Faerber from the same or similar fields of endeavor teaches the reception quality is equal to or less than a second threshold (**fig. 4 and paragraphs 0039 [lines 3-9] and 0042**). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to have a second threshold as taught in Faerber in the communications network of Khan. The second threshold as taught by Faerber can be modified/implemented into the communication network of Khan. The motivation for the second threshold is because it would improve similar devices in the same way and also it would improve spectral efficiency and high transfer rates.

8. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khan in view of Horii (US 5,535,205).

**For claim 18**, Khan discloses a radio receiving apparatus comprising:  
a reception quality measurer operable to measure a reception quality of a reception packet (**Abstract; paragraph 0007, 0009, 0014, 0015 and 0019**);  
an error detector operable to detect an error in the reception packet (**Abstract; paragraph 0007, 0009 and 0014**); and  
a transmitter operable to transmit the generated command to the communicating apparatus (**Abstract; paragraph 0007, 0009, 0014, 0015, 0019 and 0020**).

**For claim 18**, Khan specifically does not disclose a scale relationship of the reception quality to each threshold level. However, **Horii** from the same or similar fields

of endeavor teaches a threshold level determiner operable to provide a first threshold level and a second threshold level less than the first threshold level and determine a scale relationship of the reception quality to each threshold level (**col. 2 [In. 57-67]; col. 3 [In. 46-58] and col. 7 [In. 37-45]**); a command generator operable to generate a command that instructs to temporarily suspend packet transmission when the reception quality is equal to or less than the first threshold level yet greater than the second threshold level, and thereafter generate a command that requests to resume the packet transmission when a reception quality of a reception packet for another user is greater than the first threshold level, and generate a command that instructs to stop the packet transmission when the reception quality is equal to or less than the second threshold level (**Abstract; col. 2 [In. 57-67]; col. 3 [In. 46-58]; col. 6 [In. 38-60]; col. 7 [In. 37-45] and col. 8 [In. 18-32]**). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to determine a scale relationship of the reception quality to each threshold level as taught in Horii in the communications network of Khan. The scale relationship of the reception quality to each threshold level as taught by Horii can be modified/implemented into the communication network of Khan. The motivation for determine a scale relationship of the reception quality to each threshold level is because it would improve similar devices in the same way and also to increase the speed of the digital radio communication.

**For claim 19,** Khan discloses a radio receiving method comprising the steps of: measuring a reception quality of a reception packet (**Abstract; paragraph 0007, 0009, 0014, 0015 and 0019**);

detecting an error in the reception packet (**Abstract; paragraph 0007, 0009 and 0014**); and transmitting the generated command to the communicating apparatus (**Abstract; paragraph 0007, 0009, 0014, 0015, 0019 and 0020**).

**For claim 19**, Khan specifically does not disclose a scale relationship of the reception quality to each threshold level. However, Horii from the same or similar fields of endeavor teaches providing a first threshold level and a second threshold level less than the first threshold level and determining a scale relationship of the reception quality to each threshold level (**col. 2 [In. 57-67]; col. 3 [In. 46-58] and col. 7 [In. 37-45]**); generating a command that instructs to temporarily suspend packet transmission when the reception quality is equal to or less than the first threshold level yet greater than the second threshold level, and thereafter generating a command that requests to resume the packet transmission when a reception quality of a reception packet for another user is greater than the first threshold level, and generating a command that instructs to stop the packet transmission when the reception quality is equal to or less than the second threshold level (**Abstract; col. 2 [In. 57-67]; col. 3 [In. 46-58]; col. 6 [In. 38-60]; col. 7 [In. 37-45] and col. 8 [In. 18-32]**). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to determine a scale relationship of the reception quality to each threshold level as taught in Horii in the communications network of Khan. The scale relationship of the reception quality to each threshold level as taught by Horii can be modified/implemented into the communication network of Khan. The motivation for determine a scale relationship of the reception quality to each

threshold level is because it would improve similar devices in the same way and also to increase the speed of the digital radio communication.

***Response to Arguments***

9. Applicant's arguments, filed on June 19, 2009, with respect to **claims 8 and 13** have been considered but they are not persuasive.

Applicant argues that Khan does not disclose "**a radio receiving apparatus that transmits a suspend signal to a radio transmitting apparatus based on a measured reception quality of data communicated from the radio transmitting apparatus to the radio receiving apparatus**" (see Remarks page 7-8).

In response to the preceding arguments examiner respectfully submits that **Khan** teaches "**transmitter transmits the suspend signal to the radio transmitting apparatus based on the reception quality between the radio transmitting apparatus and the radio receiving apparatus**" as disclose that based on the condition of the mobile station, command signal are to either stop or resume transmission of data (paragraph 9 and 14).

Applicant argues that Khan does not disclose "**communicating a NACK signal if an error is detected**" (see Remarks page 8).

In response to the preceding arguments examiner respectfully submits that **Khan** teaches "**transmitter transmits the NACK signal to the radio transmitting apparatus if the error is detected**" as disclose that it is determine that the loss of

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received data by the station leads UE transmitting the command signal (Abstract; paragraph 9 and 14).

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liton Miah whose telephone number is (571)270-3124. The examiner can normally be reached on Monday through Friday 7:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on (571)272-7915. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LM

/Rafael Pérez-Gutiérrez/  
Supervisory Patent Examiner, Art Unit 2617